Center-Johnson Project

Range Specialist Report

Nez Perce-Clearwater National Forests
Salmon River Ranger District

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Introduction

Grazing is an important use within the project area and has been ongoing for many decades. There is a need to maintain and/or increase the forage resource in the project area.

Scope of the Analysis

Analysis Area

The following document provides a current analysis of the grazing permits, grazing system, range improvement status; as well as, upland and riparian conditions on the four allotments: Christie Creek, Sherwin Creek, Cow Creek and Riverview. These allotments support five livestock producers (herein after referred to as "permittees").

Cumulative Effects Analysis Area

Cumulative effects are considered within the impacted grazing allotments.

Regulatory Framework

The project would comply with Forest Plan forest-wide standards for range resources in the Nez Perce National Forest Plan (USDA Forest Service 1987a, page II-17; pp III-9 and III-10; Table 3-2). Full details of consistency of the project with the Forest Plan are located in the project record.

Analysis Methods and Indicators

Grazing Allotments, Permits and Range Improvements

Historical and current grazing permit data is managed in a federal database. This database provides record of grazing permits, billed uses, range improvements, and administrative actions. A federal spatial database also provides GIS record of allotments and pastures that may be used in analysis.

Upland Rangeland Condition and Trend Data

With data reaching back to the 1950's Parker Three-Step Condition and Trend benchmarks (C&Ts) provide the best opportunity to gain understanding of the long-term rangeland conditions and trends. Beginning in 2000 an effort to re-establish and re-read C&Ts was undertaken within the project area. C&Ts assess range condition and document changes in vegetation cover over time caused by livestock grazing. Original photography is also an important part of each C&T.

Forage Production and Capability

Habitat Type Groups (HTGs) provide a spatial accounting of major habitat types throughout the forest that can be calculated through GIS. This information can then be analyzed to determine the potential for forage production based upon the typical canopy closure and site characteristics of each habitat type.

Summary of Analysis

Existing Condition

- There are four active allotments in the project area: Christie Creek (62%), Sherwin Creek (95%), Riverview (27%) and Cow Creek (<1%).
- 83 percent of project area is characterized by Grand Fir and Doug Fir communities which are often have a closed canopy, and minimal forage production. 15 percent are grasslands, only a portion of which produce forage.
- Upland long-term higher elevation plots show pine encroachment and static bunchgrass trends, whereas, lower elevation grasslands are degraded by Common Crupina and trending toward annual grasslands.

Current Condition

Grazing Allotments, Permits and Range Improvements

The Center-Johnson project area is comprised of the Christie Creek, Sherwin Creek, Cow Creek and Riverview Allotments. These allotments support five Term permits, two Term On/Off permits, and one Term Private Land permit.

Table 1. Project Area Allotment Grazing Permits

Allotment	Permittee	Permitted Cow/Calf Pairs (Cc)	Permitted Season	Permit Type	Acres in Project Area (percent of total allotment)
Christie Creek	Anita Robinson-Smith*	173	5/25-10/25	Term	5,269 (62%)
		15	5/25- 10/25	Term Private Land (waived, leased private, BLM)	
	Total:	188			
Sherwin Creek	Anita Robinson-Smith*	21	5/25- 11/25	Term	4,280 (95%)
	Rex Baker	28	5/25- 11/25	Term	
	Total:	49			
Riverview	Ernie Robinson	11	4/15- 6/1 On Portion	Term On/Off Permit	202 (27%)
		89	4/15-6/1 Off (pvt) Portion		
	Total:	100			
Cow Creek	Gill Family Ranches LLC	558	6/1 – 12/1	Term	36 (<1%)
		10 (horse/mule)	6/1 – 12/1		
		10	12/2 – 5/31	Term On/Off Permit	
	Rex Baker	31	6/1 – 12/1	Term	
	Total:	589 Cc & 10 h/m			

**** C/o Raymond & Molly Stowers***

Christie Creek Allotment. This allotment has been an early spring through fall cow and calf operation. It is comprised of six pastures, all of which are included in the project area. Each of these pastures has fencing and natural barriers, such as steep slopes or heavy timber, serving as pasture boundaries. Although rotations have the ability to change annually, the standard rotation for Christie Creek Allotment begins with cattle drifting up-hill from adjacent private and BLM winter grounds adjacent the Rhett and Joe Creek pasture areas each spring, working over the top through Grave Point and Johnson Creek pastures and drifting onto permittee's home place each fall through Deer Creek pasture.

Sherwin Creek Allotment. This allotment is operated on by two permittees spring through fall. The allotment is comprised of five pastures with four serving as the basis for the primary grazing. Boundary fencing is fairly extensive; however, pasture fencing is limited to Center Ridge so separation historically has depended primarily on riding.

A typical rotation for this allotment with both operators running together begins on Lower Center Ridge's open bunchgrass and annual grasses communities beginning May 25th, then moving in a counter-clockwise pattern into Upper Center Ridge than Mud Springs Ridges until November 25th.

Riverview Allotment. The nature of an On/Off allotment, such as Riverview allotment, is to allow Forest Service lands to be managed in combination with private lands to eliminate the need for fencing, and to allow the land to be used as topography dictates. The Riverview 'on' portion is used from April 15th through June 1st when livestock move up from adjacent winter feed and calving ground and are turned onto private fields surrounded by both private and Forest timbered lands for a short period until hauled to summer pasture elsewhere.

Cow Creek Allotment. Since only 2 acres of this allotment fall within a proposed treatment area impacts will be limited to the China Creek pasture. Although rotations are subject to change, this pasture is typically used by a portion of permitted livestock June 1st through July 15th, and again in November by cows after calves have been weaned. This area is also part of a Term On/Off permit which allows for NFS lands to be used in combination with adjacent private lands. Only 10 cc pair are permitted to overwinter in this area, but in reality will be located in lower elevations directly adjacent to private along Cow Creek grade.

Range Improvements. Within the project area there are 22 miles of fence, and 31 water developments. A portion of these fences were replaced following the 2007 Poe Cabin Fire. These fences are standard four-strand fences with metal T-posts and H-braces. Only fence stays are wood. Older fences throughout the project area have varying ratios of wood to metal post, as well as, varying condition scores. All fences shown in Figure 1 are functional and active.

Upland Rangeland Condition, and Trend

Three Christie Creek grassland C&Ts were established in 1958 and 1969. Bluebunch and fescue appear to be static (marginal decline at one site), with Sandberg's Bluegrass increasing. Forbs appear to be increasing in many plots, and Ponderosa Pine is invading (thought to have been a result of a tremendous cone crop in the 1970s).

Three Sherwin Creek grassland C&Ts were established in 1967, 1982, and 1982. One ridgeline site is in good condition and trending upward. This site is dominated by Idaho Fescue which shows slight decline; however, Bluebunch Wheatgrass and Arrowleaf Balsamroot are increasing. Ponderosa Pine is invading. The remaining two lower sites are heavily degraded by Common Crupina with Cheatgrass declining. These sites are trending downward into annual grasslands.

Forage Production and Capability

The project is approximately 83 percent Grand Fir and Doug Fir communities which are often characterized by a closed canopy that typically only produce 100 to 200 pounds to an acre of forage which is found along existing or abandoned roadways, small natural clearings, and transitory range created by previous timber harvest. Forage production created by past commercial timber harvest which reduces canopy closure in Grand Fir and Doug Fir communities, and/or maintains open larch and ponderosa stands has been responsible for the majority of transitory range, typically providing about 500 pounds usable forage per acre post-harvest years 5 through year 20.

Only 2 percent of the project area has Ponderosa Pine communities, which allow sunlight to filter to the forest floor supporting up to 1,500 pounds to an acre herbaceous forage, as well as, browse. Fifteen percent of the project area is open, arid grasslands characterized as the Bluebunch Wheatgrass/Sandberg Bluegrass/Arrowleaf Balsamroot and Idaho Fescue/ BluebunchWheatgrass habitat types (Tisdale, E.W.); as well as, large populations of noxious weeds and annual grasses. Although not the most desirable summer forage to livestock, native grasslands where intact can provide up to 2,000 pounds an acre. Where annual grasses are prevalent, they can supply an essential spring forage.

Proposed Action

Native Grassland Restoration / Pine Mastication

Existing Condition: Many native grasslands within the project area are experiencing Ponderosa Pine encroachment.

Desired Condition: Open grasslands that are dominated by native grasses and other desirable forage species that are able to resist invasion of by providing adequate soil cover and plant density. This landscape will also provide increased forage production and quality.

Need for Action: Mastication of Ponderosa Pine encroachment on 70 acres of grasslands will occur on gentle ridgetops or areas less than 30 percent slope that do not require construction of roads or trails for equipment access. Impact from equipment tracts, although minimal, may create bare soil in places. The slash material created in the mastication process is small enough to rot in relative fast time; however, large enough to allow sun and light to penetrate underneath allowing forage production to continue, rather than forming a dense carpet of chips that chokes out existing vegetation.

Direct, Indirect and Cumulative Effects

Alternative 1 – No Action with Wildfire

Under the 'no action' alternative forage production will continue to be restricted to diminishing transitory range provided by previous burn areas, road systems, grasslands, and open canopy ponderosa pine forests.

Livestock use would continue under the existing grazing permits. Range improvements would continue to be managed and maintained for use.

Natural succession of the current species composition in the project area would continue to increase canopy closure, and reduce transitory range forage production. Without a regular fire regime and/or timber harvest and management to favor open ponderosa pine stands which provide a landscape capable of supporting herbaceous forage production, the livestock carrying capacity of the project area would slowly, but steadily decrease. Prescribed fire and timber harvest/mastication is preferred to maintaining the open grasslands and ponderosa pine stands compared to wildfire due the devastating effects wildfire can have on livestock safety, range improvements, as well as, plant and soil effects that can inhibit the growth of grass for many years, and thus the time-span for livestock to re-enter impacted areas.

If transitory range forage production is lost to a point in which it negatively impacts the health and stability of riparian and grassland systems livestock numbers may require a proportional reduction. A reduction can significantly impact the economic viability of a grazing allotment, permittee(s), and ultimately the community.

Alternative 2 – Proposed Action

Grazing Allotments, Permits and Range Improvements

The planned design measures include protection of range improvements or replacement in activity contracts (See Chapter 2, Alternatives). If not identified and protected in activity contracts it could result in improvements not functioning properly causing problems with livestock management, and economic hardship if the burden of replacement or extensive repair were to be placed on the range program or permittee(s). Coordination with Range Specialist is critical prior to activities occurring in units with range improvements.

Many range improvements may be impacted by the proposed treatments. If range improvements are not protected, or provided for replacement in activity contracts, it could result in them not functioning properly causing problems with livestock management, and economic hardship if the burden of replacement or extensive repair be placed on the range program or permittee(s). Coordination with Range Specialist is critical prior to rolling up any fence, or blocking access to water developments.

Table 2. Center-Johnson Range Improvements to be Protected, by Treatment Unit

Improvement Type	Treatment Type	Alternative 2	Alternative 2, As Modified
Fence (miles)	Timber Harvest	1,2,4,5,6,10,11,16,17,21,27,32,33,36,37,39,43,48,49,50 **(5 miles)**	1,2,4,5,6,10,11,15,16,21,27,32,36,37,39,43, 48,49,50 **(4.6 miles)**
	Prescribed Burn	B1, B3 **(2.2 miles)**	B1, B3 **(2.2 miles)**
Water Developments	Treatment Area	1,5,11,12,17,25,27,30,32,36,46 **(13 Total)**	1,5,11,12,16,25,27,30,32,36 **(12 Total)**

Transportation Actions.

Main roads and trails are needed for livestock access and management from May to the end of October. This allows livestock to be moved between pastures and on/off adjacent private lands. Decommissioning, treatment debris, and equipment use of roads can effect livestock management by closing trailing routes, closing routes to salting grounds, reducing watering access, and reduce access to maintain range improvements.

Decommissioning of roads can effect livestock management by closing trailing routes, closing routes to salting grounds, reducing watering access, and reduce access to maintain range improvements. The effect of D ecommissioning can be minimized by leaving a trail free of debris and adequate to support trailing and herding of livestock (see Chapter 2, Alternatives and design measures listed below). If a trail is not left after decommissioning a road, maintenance of range improvements becomes challenging (e.g. the burden of replacing troughs and packing material). No issues have been identified with the majority of roads proposed for decommissioning; however, there are a few notable exceptions. Roads 76050 and 76050A are both used to trail livestock through the pasture; as well as, 672C1 which is both used for trailing and to access a trough. Retaining an ATV trail would provide adequate access. Furthermore, Road 76065, also commonly known as the Sherwin Creek trail is vital in the movement of livestock and access to fence and riparian exclosures. This alternative would decommission this road to a trail, which is its current state.

Upland Rangeland Condition, and Trend
Upland condition and trend may decrease temporarily if directly impacted by mastication equipment or fuels treatment, but is expected to increase as forage grasses naturally seed back into those areas.

Forage Production and Capability
Under Alternative 2, silviculture treatments on approximately 3,081 acres using intermediate and regeneration harvest would reduce crown closures which would increase transitional grazing opportunities, with no adverse effects to other aspects of livestock management so as long as livestock can access the treated areas, and range improvements are protected. Prescribed burning on approximately 1,038 acres and small diameter pine mastication on approximately 70 acres would temporarily reduce the amount of brush and conifer encroachment, allowing for an increase in herbaceous forage, provide a nutrient flush for native grasses and forbs, and reduce juvenile tree encroachment on open landscapes. Alternative 2 treats the most acreages and would maintain and/or increase the forage resource in the project area. For the stands that are not treated under this alternative the effects would be similar to the effects described under alternative 1.

Timber Harvest Actions. The proposed vegetation treatments that reduce crown closures are expected to result in increased transitional grazing opportunities, especially if landings and skid trails are seeded, with no adverse effects to other aspects of livestock management as long as livestock can access the treated areas, and range improvements are protected. Three to five years after the treatments the herbaceous vegetation should increase from what it was originally. Timber harvest units for this area typically provide about 500 pounds usable forage per acre through year 20. After which, conifer re-establishment reduces usable forage to about 200 pounds. An opportunity to recover some forage lost may occur with the completion of the proposed Center-Johnson project through intermediate and regen treatment; as well as, mastication of small diameter pine encroachment. Since the 1980's zero acres have been harvested in the project area.

As a result, since transitory range is most productive within the first 20 years post-harvest, these past harvest activities have fulfilled their lifespan as transitory range.

The Center-Johnson project proposed treatments impact the above identified allotments to varying degrees. Table 2 and Figures 1 and 2 illustrate the potential impacts to each allotment.

Prescribed Burning. Fire also contributes to range production and health by temporarily reducing the amount of brush, allowing for an increase in herbaceous forage, providing a nutrient flush for native grasses, and reducing juvenile tree encroachment on open landscapes. The largest recent fires within the Center-Johnson project area was the Poe Cabin fire in 2007 which burned approximately 300 acres. Prior to Poe Cabin, approximately 80 acres had burned in the project area prior to the 1940's. Since 2007, the forage created by the Poe Cabin fire has increased and will continue to provide forage at least another 10 years or until the brush component and seedlings re-colonize to the point in which they crowd out herbaceous forage. The effects of early century historic fires no longer effect the existing condition.

Grassland Treatment. There is a need to maintain and/or increase the forage resource in the project area which is well-demonstrated by the decision made in the 2011 Christie-Sherwin EA to reduce the grazing stocking rate and season of use because livestock grazing management was found to be not contributing to resource conditions that meet Forest Plan objectives (USDA-FS 2011). Since 2011, zero of the acres proposed in the EA for pine mastication to reduce conifer encroachment of the native grasslands have been treated. This project proposes 70 acres of pine mastication to maintain open grasslands. Grasslands experiencing encroachment from small trees have reduced cattle and wildlife grazing opportunities. Following treatment grasslands shall be free from conifer encroachment and support native plant populations that provide an important forage resource. Impact from equipment tracts, although minimal, may create bare soil in places. The slash material created in the mastication process is small enough to rot in relative fast time; however, large enough to allow sun and light to penetrate underneath allowing forage production to continue, rather than forming a dense carpet of chips that chokes out existing vegetation.

Table 3. Acres of Proposed Treatment by Allotment

Allotment	Acres of Treatment Type by Allotment		
	Treatment	*Alternative 2*	*Alternative 2, as Modified*
Christie Creek	Timber Harvest	2,151	2,077
	Prescribe Burn	479	479
	Pine Mastication	70	70
	Total in treatment area	**2,700**	**2,626**
Riverview	Timber Harvest	47	47
	Total in treatment area	**47**	**47**
Sherwin Creek	Timber Harvest	881	918
	Prescribe Burn	559	559
	Total in treatment area	**1,440**	**1,477**
Cow Creek	Timber Harvest	2	2
	Total in treatment area	**2**	**2**

Alternative 2 – Proposed Action, as Modified

Under Alternative 2 – Proposed Action, as Modified there is a reduction from 3,081 to 3,044.5 treatment acres, and a reduction in temporary roads on existing roads due to the elimination of two treatment units. The difference in treatment acres is not expected to have a significant impact on effects in comparison to Alternative 2 – Proposed Action.

Effectiveness of Mitigation

Table 4. Preliminary Mitigation Measures

Range				
Item #	**Mitigation Measures**	**Implementation Method**	**Effectiveness**	**Units Impacted**
1	Prior to harvest, fuel and other activities, Forest Service activity administrators must contact the Rangeland Management Specialist in regards to existing trails used for yarding, as well as, to facilitate movement of livestock, as needed.	All project activities	High, based on experience.	TBD during implementation
2	Protect range improvements from damage during implementation (e.g. livestock, cabins, corrals, barns, water developments, water lines, ponds and fences). Re-install/repair allotment fence in the same season if any pasture fence is removed or breached to facilitate timber harvest.	Timber Sale Contract & Burn Plan	High, based on experience	Refer to Table 3.
3	Install and maintain cattle barriers at allotment boundaries if roads and/or skid trails (permanent or temporary) cross allotment boundaries.	All project activities	X	TBD during implementation
4	Protect or return to the same condition, any specified existing non-system trails used to facilitate movement of livestock. Trails shall not to exceed 46 inches in width and be free of slash material from post- timber harvest, fuel treatment, and/or other activities. Coordinate with Rangeland Management Specialist.	All project activities	X	TBD during implementation

Consistency with Forest Plan and Environmental Laws

Nez Perce National Forest Land and Resource Management Plan Direction

The project would comply with Forest Plan forest-wide standards for range resources in the Nez Perce National Forest Plan (USDA Forest Service 1987a, page II-17; pp III-9 and III-10; Table 3-2). Full details of consistency of the project with the Forest Plan are located in the project record.

Table 5. Compliance of project with Forest Plan standards

Standard Number	Subject Summary	Compliance Achieved By
Forest Plan Standards – Range		
1.	Coordinate livestock grazing on timber harvest units as necessary to provide for tree regeneration. Livestock grazing on lands designated for timber production may be permitted under one of the following conditions: Regeneration is established and is of adequate size. The silvicultural prescription and allotment management plan are specifically designed to meet regeneration goals.	Coordination between silviculture specialist and range specialist will aid in the development of the annual grazing schedule and objectives which is agreed upon by permittee prior to turn out.
2.	2. In areas with poor or fair range conditions, intensive grazing systems, range improvements, and reductions of stock will be implemented to improve conditions.	This standard does not apply, this project does not proposed range improvement to improve allotment management.
3.	3. Implement a weed control program to confine present infestations and prevent establishment of new areas of noxious weeds. The Forest will favor biological control for noxious weeds that have effective host insects. Where biological control is not effective, a combination of hand grubbing and spot application of herbicides will be used. This program will be coordinated with county, state, and other federal agencies. All NEPA requirements will be completed prior to using any herbicides.	See the Invasive Species section of the EIS.
4.	Extend or build fences to maintain control of livestock when management activities, such as timber harvest, remove natural allotment boundaries.	Coordination between permittees and range specialist to identify fences that become ineffective post-treatment and develop plan.
5.	Complete range analysis and allotment management plans every decade for all allotments.	This standard does not apply to the project because it is outside the scope of the project, applies to different activity types than are proposed in the project, or is not related to the project activities.
6.	Provide forage for elk needs in allotment management plans on all allotments that include elk winter range. The assumption is made that available forage is not a limiting factor on summer habitat. *This text reflects changes made by amend #7*	This standard does not apply to the project because it is outside the scope of the project, applies to different activity types than are proposed in the project, or is not related to the project activities.
7.	Use grazing systems and cultural practices to reduce erosion by maintaining, improving, or re-establishing vegetative cover.	This standard does not apply to the project because it is outside the scope of the project, applies to different activity types than are proposed in the project, or is not related to the project activities.
8.	Minimize adverse impacts on riparian areas by maintaining or developing intensive grazing systems.	This standard does not apply to the project because it is outside the scope of the project, applies to different activity types than are proposed in the project, or is not related to the project activities.

References

Tisdale, E.W. 1986. Canyon Grasslands and Associated Shrublands of West-central Idaho and Adjacent Areas. University of Idaho.

United States Department of Agriculture – Forest Service (USDA-FS).

1987. Nez Perce National Forest Land and Resource Management Plan, as amended. USDA-FS, Northern Region, Nez Perce National Forest, Grangeville, ID. 174 pp. + appendices. (page II-17; pp III-9 and III-10; Table 3-2) Available online at: http://www.fs.usda.gov/detail/nezperceclearwater/landmanagement/planning/?cid=stelprdb5404075

2011. Christie and Sherwin Creek Allotments – Decision Notice/FONSI and Environmental Assessment. USDA-FS, Nez Perce National Forest, Salmon River Ranger District, White Bird, Idaho.

Figure 1. Alternative 2 - Allotments and Range Improvements

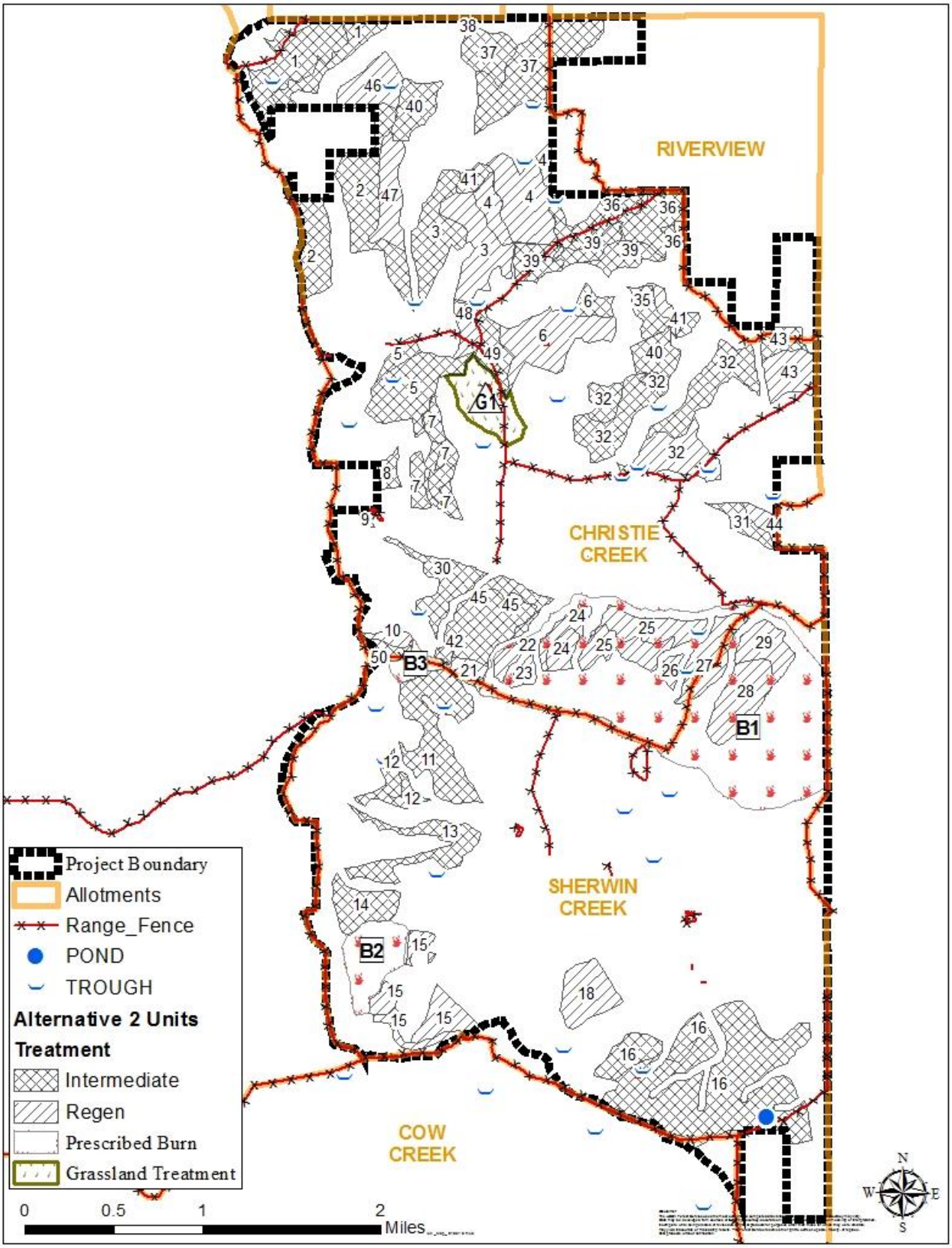

Figure 2. Alternative 2 w/ Modifications - Allotments and Range Improvements